INSTALLATION CERTIFICATE

The undersigned qualified installer attests to have personally fitted the here described vehicle security system following the manufacturer instructions.

By:

Sold On:

Type of Product: ☐ **S37**

Vehicle:

Scorpion Automotive permanently fitted aftermarket equipment must be installed by qualified and authorised installers. Thatcham recommends to its insurer members that the installations of certified products within the aftermarket are registered with an independent installation registration system which can be accessed by insurance companies.

S-Series
A brand of the Scorpion Automotive Group
Scorpion House,
Drumhead Rd,
Chorley, Lancashire, UK,
PR6 7DE

SCORPION AUTOMOTIVE

S-SERIES

S37

INSTALLATION GUIDE

UK

CE UK CA

Rev 02 – 09/22

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1.0 – INTRODUCTORY NOTE

Please read the present manual carefully to familiarize yourself fully with the alarm system features and operating procedures and do keep it handy for future reference.

NB: Optional remote controls are available to operate the alarm system and the CDL, only where negative CDL connection is available (see par. 2.0 PINOUT TABLES).

The following symbols are included in the present Manual to emphasize important instructions:

For the installer.
This sign indicates that the system will work according to the connections and the programming selected or it simply provides useful installation tips.

2.0 – PINOUT TABLES

2.1 – 20-PIN CONNECTOR

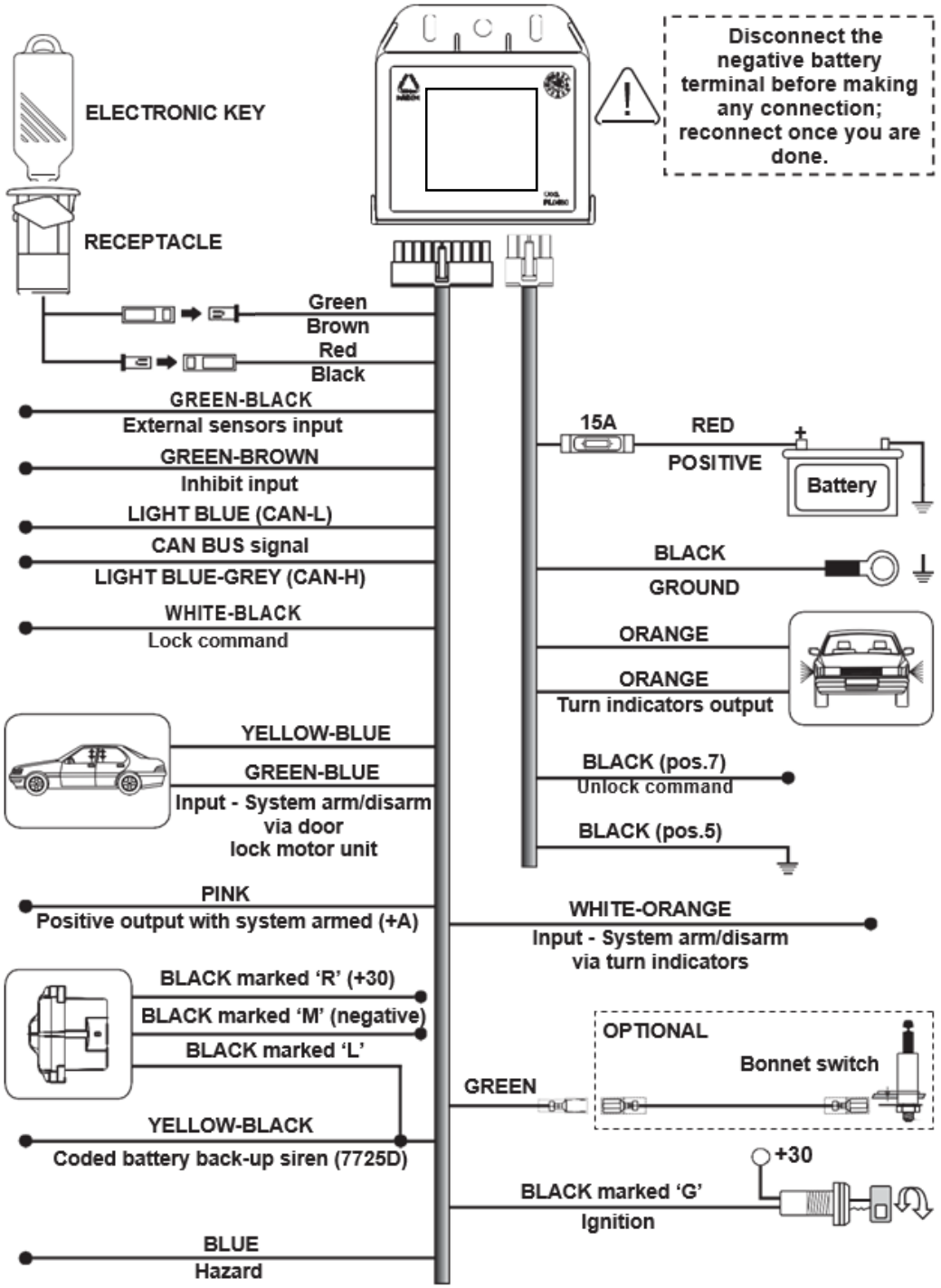
POSITION	WIRE FUNCTION	WIRE COLOUR
- 1 -	-----	-----
- 2 -	System arming signal	YELLOW-BLUE
- 3 -	System disarming signal	GREEN-BLUE
- 4 -	-----	-----
- 5 -	Inhibit input (par. 11.6)	GREEN-BROWN
- 6 -	Electronic key receptacle input	GREEN
- 7 -	Electronic key receptacle ground	BROWN
- 8 -	LED negative output	BLACK
- 9 -	LED positive output	RED
- 10 -	Ignition	BLACK marked "G"
- 11 -	CAN BUS signal (CAN-H)	LIGHT BLUE-GREY
- 12 -	CAN BUS signal (CAN-L)	LIGHT BLUE
- 13 -	Positive output when system is armed (+A)	PINK
- 14 -	External sensors input	GREEN-BLACK
- 15 -	Bonnet switch negative input	GREEN
- 16 -	Hazard	BLUE
- 17 -	Lock command (1,5" negative pulse when pressing optional Gemini remote control button 1 or 3)	WHITE-BLACK
- 18 -	Coded battery back-up siren	YELLOW-BLACK
- 19 -	Antenna	BLACK
- 20 -	Learn input and system arm/disarm via turn indicators	WHITE-ORANGE

WHITE-ORANGE wire must ALWAYS be connected if system is to arm/disarm via the turn indicators.

2.2 – 8-PIN CONNECTOR

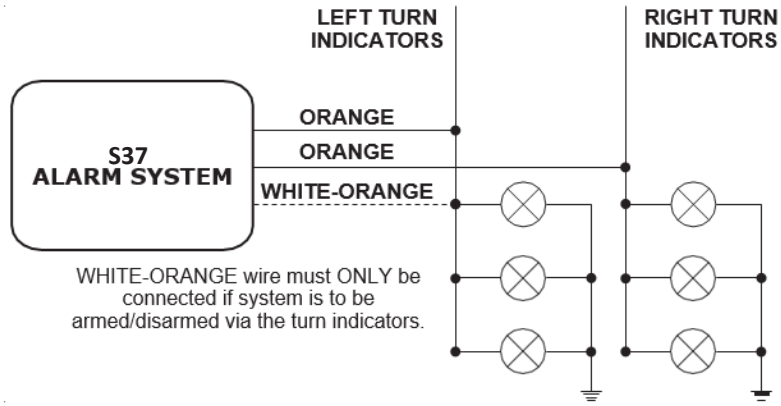
POSITION	WIRE FUNCTION	WIRE COLOUR
- 1 -	Ground	BLACK
- 2 -	-----	-----
- 3 -	Positive power supply	RED
- 4 -	Turn indicators positive output	ORANGE
- 5 -	Ground (unlock common relay)	BLACK
- 6 -	-----	-----
- 7 -	Unlock command (1,5" negative pulse when pressing optional Gemini remote control button 2)	BLACK
- 8 -	Turn indicators positive output	ORANGE

3.0 – WIRING DIAGRAM

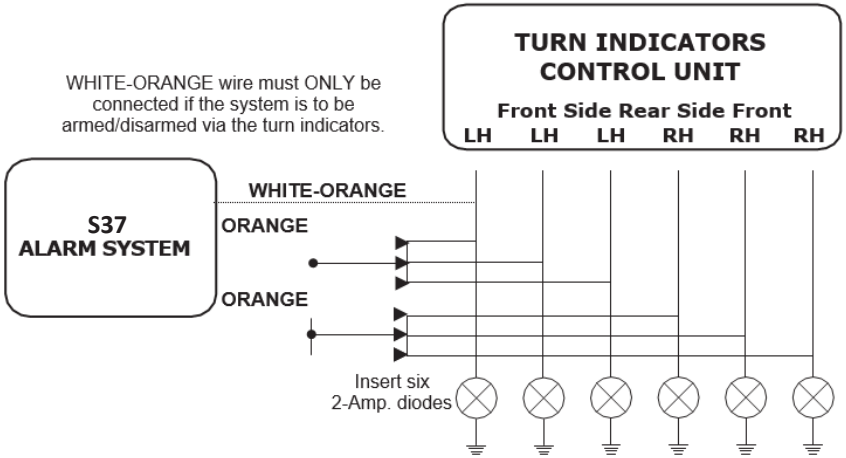


4.0 – TURN INDICATORS WIRING DIAGRAMS

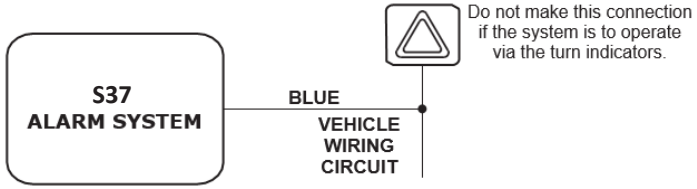
4.1 – STANDARD CONNECTIONS



4.2 – CONNECTIONS FOR VEHICLES WITH SEPARATE LINES



4.3 – CONNECTION TO HAZARD SWITCH



5.0 – CENTRAL LOCKING CONNECTIONS TO ARM/DISARM THE SYSTEM

The SIGS37 system can operate in various modes according to the vehicle on which it is installed and the available connections (refer to the vehicle installation specifications).

The alarm system can be managed via the vehicle CAN BUS line and operate in combination with the CAN signals, with the turn indicator flashes and/or the door lock motor unit. The system automatically manages the different arm/disarm signals.

The next paragraphs deal with the different types of connections; the arming modes are the following:

- Arming via CAN BUS line.
- Arming via locking motors.
- Arming via self-learning of turn indicator flashes.
- Arming via turn indicator flashes and locking motors.
- Arming via turn indicator flashes, locking motors and CAN BUS line.

5.1 - CONNECTIONS AND MANAGEMENT VIA CAN BUS LINE

System arm/disarm and alarms being managed via CAN, only connect the alarm CAN BUS wires to the vehicle CAN

5.2- CONNECTIONS TO LOCKING MOTORS

System arm/disarm connections must be made to the vehicle locking motors (polarity inversion).

5.3- CONNECTIONS TO TURN INDICATORS

If the turn indicators lock/unlock flashes are identical, connect the door lock motors.

If the turn indicators flash when unlocking with the car mechanical key, do not make this connection.

To arm/disarm the system, connect the WHITE-ORANGE wire to one of the turn indicators wires.

5.4 – COMBINATION CONNECTION

This type of connection allows the system to operate via the CAN BUS line with the turn indicators or the door lock motors or both.

The system will automatically manage the different lock/unlock signals according to the selected configuration and connections.

6.0 – VEHICLE CODE PROGRAMMING

If the system is to be managed via CAN BUS, it must be configured according to the vehicle on which it is installed.

Here below is an example illustrating the configuration procedure. In this case the code used is 1-0-3 which hypothetically corresponds to a “FIAT XXXXX”.

A separate leaflet, included in the alarm packaging, lists available vehicles (codes are updated at packaging time).

The system has an indicator LED that signals any wrong vehicle code inserted. The code must range between 100 and 235 otherwise the LED on the unit blinks repeatedly and the procedure is interrupted.
The previously inserted code remains stored.
The procedure is also invalidated if the LED blinks more than 10 times.
In this case there are no optical warnings, the procedure is simply interrupted.
In either case, repeat the entire procedure.

Connect the harness 20-way connector to the alarm 20-way connector.

Press and hold the button shown below until the LED lights up.

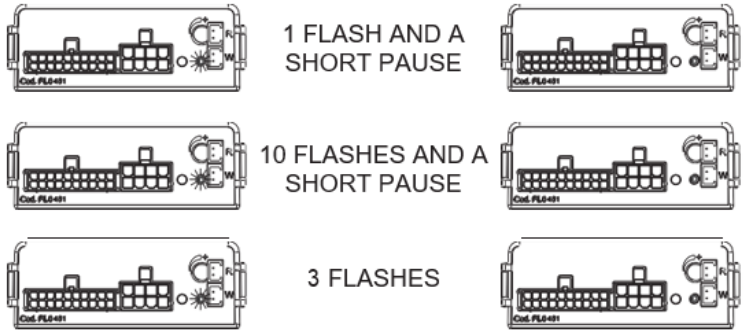
Release the button, the LED switches off.

After 3 to 4 seconds, the LED starts flashing; count the flashes.
Press the button at the 1st flash which corresponds to digit “1”.

After another 4 seconds, there is a second sequence of flashes.
Press the button at the 10th flash which corresponds to digit “0”.

After 4 more seconds, the LED will start flashing one more time.
Press the button at the 3rd flash which corresponds to digit “3”.

When the last digit is entered, the alarm system “repeats” the entered code.



Press the remote-control lock/unlock buttons to make sure the alarm system works properly.
Eventually disconnect the 20-way connector and reconnect it after few seconds.

7.0 – LEARNING OF TURN INDICATORS FLASHES

In order to arm/disarm via the turn indicators, the system must learn the vehicle lock (arm) and unlock (disarm) flashes.

Connect the WHITE-ORANGE wire to the turn indicators and then proceed as follows:

- Disconnect the 8-way wiring connector from the 8-way alarm connector.
- Turn ignition key “ON”.
- Connect the 8-way wiring connector to the 8-way alarm connector; the LED turns ON steady.
- Turn ignition key “OFF”.
- Close all doors and press the lock button on the original remote control or the Gemini optional remote.
- When the turn indicators stop flashing, the LED turns OFF for 1 sec.
- Press the unlock button on the original remote control or on the Gemini optional remote.
- When the turn indicators stop flashing, the LED turns OFF.
- This completes the procedure.

To cancel the programming of turn indicators, reset the system (see chapter 13.0).

8.0 – SYSTEM PROGRAMMING

The table below applies to the system programmed in “standard configuration”.
Every time you enter the programming procedure, the alarm resets to the default settings.

FEATURES	DEFAULT STATUS	LED FLASHES
‘*Exclusion*’ of arm/disarm optical signals	Disabled	✱
‘*Exclusion*’ of arm/disarm acoustic signals	Enabled	✱✱
System passive arming	Disabled	✱✱✱
Battery back-up coded siren	Enabled	✱✱✱✱
Door input - positive	Disabled	✱✱✱✱✱
Negative output during alarm cycle	Disabled	✱✱✱✱✱✱
For Sigma only - Turn ignition key	Disabled	✱✱✱✱✱✱✱

Procedure must be carried out entirely. To scroll from one function to another either turn the key to disable it or use the electronic key to enable it (see par. 12.0).

NB: A lack of power during electrical system maintenance will not affect the programming. Below is a brief description of the programmable functions.

8.1 – OPTICAL SIGNALS

When this function is disabled, the turn indicators will flash when the system is armed and disarmed.

If the vehicle already has optical lock/unlock signals, turn indicator alarm flashes should be disabled.

8.2 – ACOUSTIC SIGNALS

When this function is enabled, there are no audio signals when the system is armed and disarmed.

8.3 – PASSIVE ARMING

When this function is enabled, the system automatically arms 60” after ignition is switched off and the last door is opened and closed. If a door is opened during passive arming, the procedure is interrupted. It will resume when the door is closed.

8.4 – ENABLING SIREN OUTPUT

This function, when enabled, allows communication between the alarm system and the coded battery back-up siren (ref. 7725D).

8.5 – DOUBLE PULSE UNLOCK

If this feature is enabled, 2 unlocking pulses will be supplied to unlock all doors including the cabin door. This is useful in case separate actions are required to open the driver door and then the other doors. When this feature enabled, the lock/unlock pulse time is 0,5 sec. Instead of 1,5 sec.

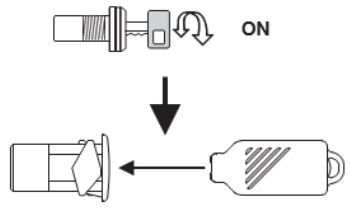
8.6 – INHIBIT INPUT

If input is active (GND), alarm disarming is inhibited for 3 seconds.

9.0 – SYSTEM PROGRAMMING EXAMPLE

Here below is an example that illustrates the steps to follow to modify the programmable features. As mentioned before, **every key rotation disables** the features, while the electronic key enables them. When ignition is turned ON or OFF or the electronic key is touched to its receptacle, a high or low pitch signal sounds and the LED flashes according to table 12.0.

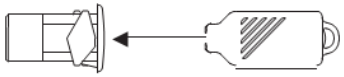
With the alarm system disarmed, turn ignition key "ON" and touch the electronic key to its receptacle.



Two acoustic signals (a high and a low-pitch sound) and two flashes of the turn indicators confirm that the system is in programming mode.

Turn ignition "OFF" and then back "ON" to disable the feature.
A low-pitch signal will confirm the operation.
The LED will flash according to the selected feature (from 1 to 7).

OR



Insert the electronic key once in its receptacle to activate the feature.
A high-pitch signal will confirm the operation.
The LED will flash according to selected feature (from 1 to 7).

In both cases, the system moves on to the next feature. Repeat steps above to enable or disable other features.

When the last feature is programmed (either with the electronic key or the ignition key), in addition to the confirmation tone, the system gives 2 low-pitch and 1 high-pitch acoustic signals and the turn indicators flash twice.

These last 2 signals indicate the end of the programming procedure.

10.0 – ADDING NEW DEVICES

To carry out the operation successfully, make sure the required electrical connections (bonnet switch and ignition) are complete.

Activate the code-learning procedure as follows:

- With the system disarmed, open the bonnet and leave it open.

The following operations must be carried out within 4 seconds otherwise the procedure is invalidated.

- Turn ignition key "**ON-OFF**"- "**ON-OFF**"- "**ON-OFF**"-"ON"; on the 4th cycle, leave it "**ON**".
- To confirm it has entered in learn mode, the system gives 2 audio signals (1 high and 1 low-pitched), the turn indicators flash once and the LED turns ON.

Do not close the bonnet otherwise all previously programmed devices will be erased as described in the next paragraph.

The system is ready to receive the device codes.

- Depending on which device is to be learned, either press one of the remote-control buttons, insert the electronic key into its receptacle, make the magnetic contact transmit (bring contact and magnet together and then move apart), press the opening detector button, make the infrared sensor or the hyper-frequency sensor transmit (see sensor instructions).
- A short beep confirms learning.
- Repeat this procedure to learn other devices.
- Turn ignition key "OFF"; a low-pitched signal and a flash of the turn indicators will confirm the end of the procedure. The status LED will turn OFF.

Storing memory is for 55 devices.
Saving an extra device will automatically delete the first device.

11.0 – DELETING PROGRAMMED DEVICES

To carry out the operation successfully, make sure the required electrical connections (bonnet switch and ignition) are complete.

Any previously programmed device can be deleted as follows:

- With the system disarmed, open the bonnet and leave it open.

The following ON-OFF operations must be carried out within 4 seconds otherwise the procedure is invalidated.

- Turn ignition key "ON-OFF"-"ON-OFF"-"ON-OFF"-"ON"; on the 4th cycle, leave it "ON".
- Two audio signals (a high and a low-pitched sound) and a flash of the turn indicators confirm the system has entered in delete mode. The LED will turn ON.
- To clear the memory, close the bonnet and keep it closed for at least 8 sec.

If the bonnet is opened before 8 seconds, devices will not be deleted.

- The status LED turns OFF when the devices have been deleted; turn ignition key "OFF".
- A long low-pitched audio signal confirms the end of the clearing procedure.

12.0 – ULTRASONIC VOLUMETRIC PROTECTION

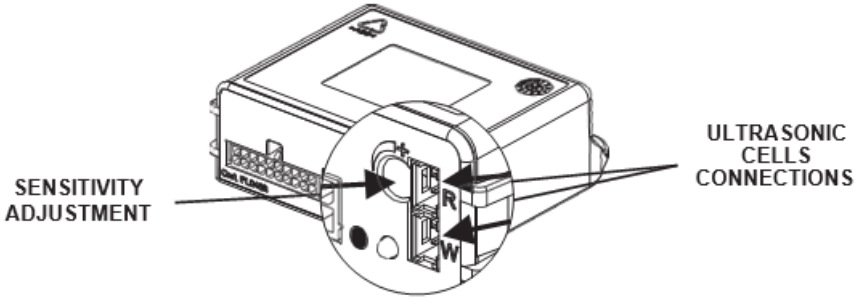
12.1 – CONNECTION AND POSITIONING

Insert the WHITE connector in the "W" marked socket and the RED connector in the "R" marked socket (see picture below).
Install the transducers of the ultrasonic sensors on the top part of the windshield internal pillars, away from the air vents and point them towards the center of the rear window.

12.2 – SENSOR ADJUSTMENT

To check sensor sensitivity level, proceed as follows:

- With the alarm system disarmed, roll down the front window approx. 20 cm.
- Set the trimmer to an intermediate position (medium sensitivity).
- Close all doors, bonnet and boot and arm the system.
- During the pre-arming delay time introduce an object in the cabin through the window and move it around; the status LED will turn off to signal a presence.
- If sensitivity level is too high or too low, readjust the trimmer and repeat the above procedure.



13.0 – SYSTEM RESET

By activating the following procedure, the system returns to the factory default setting. This procedure must therefore only be used in case of need, before programming the system or auto learning the turn indicator flashes.

To reset the system, proceed as follows:

- Disarm the system, wait 4 min. and then disconnect the coded siren (7725D).
- Disconnect the alarm power supply.
- Short-circuit the RED and BLACK wires of the 2-pin LED connector.
- Power the system; connection is confirmed by 4 flashes of the turn indicators.
- Remove the previously created short-circuit; the status LED will light up steady.
- Turn ignition key "ON"; the turn indicators turn ON for 4 sec. to confirm reset (if ORANGE wires are connected).
- Turn ignition key "OFF"; the LED will turn OFF. There will be no audio signals.

14.0 – WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE) DIRECTIVE

The present device does not fall within the scope of Directive 2002/95ec on Waste Electrical and Electronic Equipment (WEEE) as specified in art. 2.1 of L.D. No. 151 of 25/07/2005

15.0 – TECHNICAL SPECIFICATIONS

Power supply	12 Vdc
Current absorption @ 12Vdc with system armed and LED flashing	15 mA
Working temperature range	From -30°C to +70°C
Turn indicators relay contact capacity	8A @ 20°C
Alarm cycle duration	30 sec.
Maximum positive current output - system armed (+A)	700 mA